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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 663771251	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE 2003/000484	International filing date (day/month/year) 24-03-2003	Priority date (day/month/year) 27-03-2002
International Patent Classification (IPC) or national classification and IPC G06F 3/033		
Applicant Touch & Turn AB et al		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ (sent to the applicant and to the International Bureau) a total of 4 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:
  - ☒ Box No. I Basis of the report
  - ☐ Box No. II Priority
  - ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - ☐ Box No. IV Lack of unity of invention
  - ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - ☐ Box No. VI Certain documents cited
  - ☐ Box No. VII Certain defects in the international application
  - ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand 22-10-2003	Date of completion of this report 08-06-2004
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## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☐ the international application as originally filed/furnished

☒ the description:

pages 1 - 7 as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* 8 - 11 received by this Authority on 27-04-2004

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

pages 1 - 2 as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	<u>1-14</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-14</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-14</u>	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)****Documents cited in the International Search Report:**

D1: DATABASE WPI, Week 199926, Derwent Publications Ltd., London, GB; Class G06F3/14, AN 1999-313048 & WO9922314 A1 (Sharp kk), 25 September 1998 (1998-09-25)

D2: US5900876

D3: WO0219151

D4: US5764227

D5: EP0764898

D6: US5870092

**Additional document cited in the Written Opinion Of The International Preliminary Examining Authority:**

D7: US5463725

The object of the invention according to the applicant is to introduce an apparatus and method for displaying a digitised document in better quality than before and in real-time to an audience. This is done with a method and apparatus where the digitised document being printed media and the turning of the pages in the document is done in real-time by crossing a dividing line.

D1 outlines a display control device for turning pages of electronic books. The control device has a CPU which controls the whole device, an image data storage unit in which the contents of the book are stored as image data, an image data controller which receives the image data and performs the required control, a display preparation image data memory unit in which image data of the page being displayed and the page

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

to be displayed next are stored, and a display unit on which information concerning the image data and information concerning the operation of the electronic book are displayed.

D2 outlines an information processing apparatus and a method with display book page turning. According to the present invention, when an icon displayed in the form of a book in open state is designated with a mouse, the designated position is judged, and, if it is on the right-side page, the image of the designated page is displayed in compressed state to the designated point, and an underlying page is displayed. Then the designated page is turned over and the images of the succeeding two pages are displayed. When the left-side page is designated, the preceding two pages are displayed through a similar process.

D3-D6 is cited in the International Search Report as document defining the general state of art which is not considered to be of particular relevance and is therefore not further described.

D7 outlines an intuitive graphical display and input interface method for an electronic book. This involves detecting movement of specified position on displayed page of document in first direction and displaying animated sequence of images corresponding to turning page of document in a first direction. The method involves displaying an image of a multiple page document on a display device. A position on a displayed page of the document is specified with an input device. Movement of the specified position in a first direction is detected. In response to the movement, an animated sequence of images corresponding to turning a page of the document in the first direction is displayed. After the movement is detected, a termination of the specifying position by the input device is detected. In response to the termination an animated sequence of images to complete the turning of the page is displayed. This system provides interface for displaying information which is usable in an intuitive manner by acknowledgeable user. It is as similar as possible to use of actual paper reading materials (see the whole document but especially Column 6, line 56 - Column 7, line 9 and claims 1-8.

.../...

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of: Box V

The cited documents represent the general state of the art. The invention defined in claims 1-14 is not disclosed by any of these documents.

The cited prior art does not give any indication that would lead a person skilled in the art to the claimed apparatus and method for displaying a digitised document to an audience. Where the digitised document for visualisation being printed media and the turning of pages in the document is done in real-time upon indications by a user and where the indications is governed by substantially in lateral direction crossing of a dividing line with an indicating element.

Therefore, the claimed invention is not obvious to a person skilled in the art.

Accordingly, the invention defined in claims 1-14 is novel and is considered to involve an inventive step. The invention is industrially applicable.

## Claims

1. Apparatus for displaying a digitised document to an audience, the digitised document for visualisation being printed media, such as high resolution photographs of pages in a book, the apparatus comprising,
- 5 persistent memory (20), for storage of at least one digitised document in a computer readable file format,
- processing means (10), adapted to retrieve the digitised document from the persistent memory, and process the computer readable file format into a near-
- 10 identical document replica,
- display (30) for visualising the digitised document having interface (32) which represents a view of the digitised document, where animation of the document, such as the turning of a layer, being controlled by the audience,
- 15 an active field of the display is laterally enclosed by at least one dividing line (56),
- characterised in that**
- the animation of a layer (51, 52) to be turned is adapted to either begin or revert to its initial state in real-time upon indications by the audience, the indications governed by substantially in lateral direction crossing of the dividing
- 20 line with an indicating element.

2. Apparatus for displaying a digitised document according to claim 1, **characterised in that**

25 layers in a digitised document being visualised to the audience on the display are provided with edges being irregularly cut.

3. Apparatus for displaying a digitised document according to claim 1 or 2, **characterised in that**

30 layers in a digitised document are superimposed while still displaying edges so as to convey information to the audience on how far the visualised

document is from the beginning and end of a stack of layers.

4. Apparatus for displaying a digitised document according to claim 1, **characterised in that**

5 digitised documents are retrieved from at least one database (40, 41) accessible from the processing means via the Internet or any other global inter-connecting network.

- 10 5. Apparatus for displaying a digitised document according claims 1-4, **characterised in that**

the display is a touch screen, sensitive to signals governed by the audience by touching and dragging a finger tip on the visualised layer so as to indicate when a layer is to be turned.

- 15 6. Apparatus for displaying a digitised document according to claim 1-5, **characterised in that**

the indicating element is either a finger moved on a touch screen or a cursor moved by a cursor control device.

- 20 7. Apparatus for displaying a digitised document according to any of preceding claims, **characterised in that**

the audience is able to adapt the default appearance of the visualisation, in order to choose among a predefined set of suitable perspectives for the visualisation of the digitised document.

- 25 8. Apparatus for displaying a digitised document according to any of preceding claims, **characterised in that**

the persistent memory being any kind of storage location connected to the processor, such as CD-ROM, any kind of memory disk, flash memory, etc.

9. Apparatus for displaying a digitised document according to any of preceding claims, **characterised in that**

the interface is provided with links to translations of the digitised document, the translations being into languages desired by the user and being accessible on user command.

10. Apparatus for displaying a digitised document according to any of preceding claims, **characterised in that**

layers in a digitised document are displayed with delimiting intervals, the delimiting intervals being set in advance or on user command.

11. Method for displaying a digitised printed media document to an audience by utilising a memory (20) for storing of at least one digitised document in a computer readable file format, wherein a processing means (10) is adapted to retrieve documents and process it into a near-identical document replica, a display (30) visualises document and animation of the document, such as the turning of a layer, being controlled by the audience, the method **characterised by the steps of:**

indicating by the audience when real-time animation of a layer (51, 52) is about to begin or revert to its initial state, the indication governed by crossing a dividing line with an indicating element substantially in lateral direction.

12. Method for displaying a digitised document according to claim 11, further **characterised by the step of:**

visualising on the display layers which have irregularly cut edges.

13. Method for displaying a digitised document according to claim 12, further **characterised by the step of:**

visualising superimposed layers forming a stack of layers, while still displaying their edges, thereby conveying information to the audience on how far



the visualisation is from the beginning and end of the stack.

14. Computer program product for displaying a digitised printed media document to an audience, fully integrated in an apparatus according to claims 1-10, the computer program product adapted for carrying out the method steps of claims 11-13.
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